

ECS-9071

Quad Core Intel® Xeon®/Core™ i7/i5/i3 (Kaby Lake/Skylake) 10GigE Fanless Embedded System with Intel® C236 Chipset, 2-port 10GigE SFP+, 6 GigE LAN with 4 PoE+, Isolated DIO, High Performance, Rugged, EN50155, EN50121



Features

- LGA 1151 Socket supports workstation-grade Intel® Xeon®/Core™ i7/i5/i3 Processor with Intel® C236 Chipset
- Dual 10GigE SFP+ support up to 10Gbps data rate
- 6 Independent GigE LAN with 4 IEEE 802.3at PoE+
- SIM Sockets for WiFi/4G/3G/LTE/GPRS/UMTS
- 6 USB 3.0, 4 COM RS-232/422/485
- Fanless, -40°C to 55°C Operating Temperature
- 6V to 36V DC-in with 80V Surge Protection
- 16 Isolated DIO, Ignition Power Control
- 3 SIM Socket, 1 CFast Socket



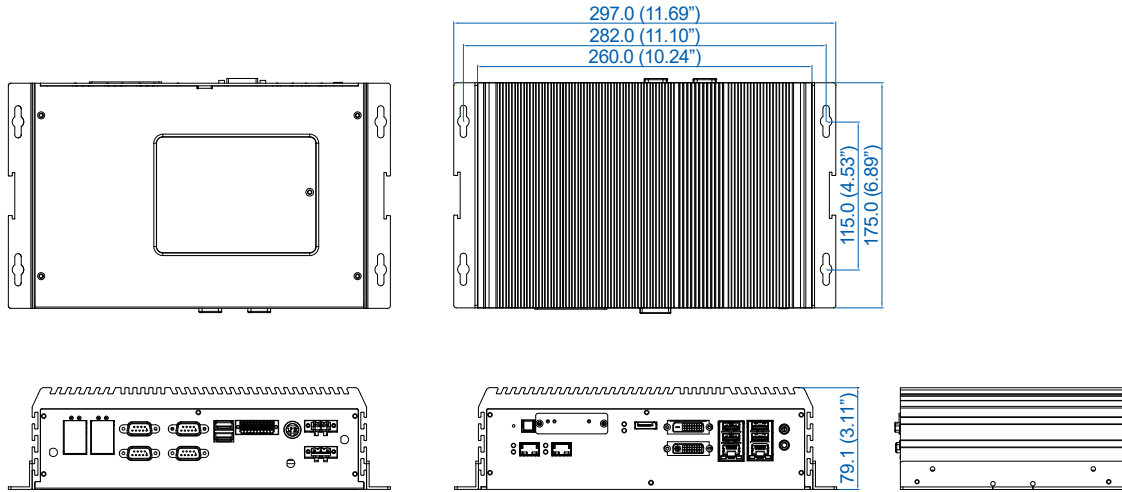
Specifications

System	
Processor	Quad Core Intel® Xeon®/Core™ i7/i5/i3 Processor (Kaby Lake-S/Skylake-S)
Chipset	Intel® C236
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2400/2133 MHz SO-DIMM, up to 64GB
I/O Interface	
Serial	4 COM RS-232/422/485
USB	<ul style="list-style-type: none"> ▪ 6 USB 3.0 (6 External) ▪ 1 USB 3.0 (Internal)
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO
LED	Power, HDD, PoE, Wireless
SIM Card	3 External SIM Card Socket
Expansion	
Mini PCIe	3 Mini PCIe Socket : <ul style="list-style-type: none"> ▪ 2 Full-size for PCIe/USB/External SIM/mSATA ▪ 1 Half-size for PCIe/USB 3.0/External SIM
Graphics	
Graphics Processor	Intel® HD Graphics P630/P530/630/530
Interface	<ul style="list-style-type: none"> ▪ DVI-I : Up to 1920 x 1200 @ 60Hz ▪ DVI-D : Up to 1920 x 1200 @ 60Hz ▪ DisplayPort : Up to 4096 x 2304 @ 60Hz
Storage	
SATA	2 SATA III (6Gbps)
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)
SATA DOM	1 SATA II (3Gbps)
Storage Device	<ul style="list-style-type: none"> ▪ 1 CFast Socket, Push-in/Push-out Ejector ▪ 2 2.5" SSD/HDD Bracket (Internal)
Audio	
Audio Codec	Realtek ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out
Ethernet	
LAN 1	Intel® I219LM GigE LAN supports iAMT 11.0
LAN 2	Intel® I210 GigE LAN
PoE	
LAN 3 to 6	GigE IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210

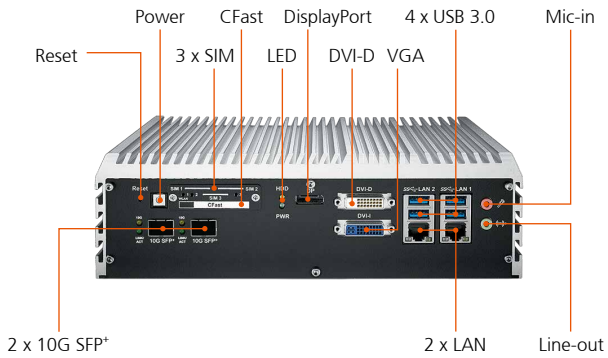
10G Ethernet	
LAN 7	Intel® X710-BM2 10GigE LAN supports IEEE 802.3 10GBASE-T SFP+
LAN 8	Intel® X710-BM2 10GigE LAN supports IEEE 802.3 10GBASE-T SFP+
Power	
Power Input	6V to 36V, DC-in
Power Interface	<ul style="list-style-type: none"> ▪ 3-pin Terminal Block : V+, V-, Frame Ground ▪ Mini-DIN 4-pin
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin terminal block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power
Others	
TPM	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Management	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats
Software Support	
OS	Windows 10, Windows 8.1, Windows 7, Linux
Mechanical	
Dimensions	260mm x 175mm x 79mm (10.2" x 6.9" x 3.1")
Weight	3.9 kg (8.60 lb)
Mounting	<ul style="list-style-type: none"> ▪ Wallmount by mounting bracket ▪ DIN Rail Mount (Optional) ▪ 2U Rackmount (Optional)
Environment	
Operating Temperature	-40°C to 55°C (-40°F to 131°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 55°C
Shock	<ul style="list-style-type: none"> ▪ IEC 60068-2-27 ▪ SSD : 50G @ wallmount, Half-sine, 11ms
Vibration	<ul style="list-style-type: none"> ▪ IEC 60068-2-64 ▪ SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	E13, CE, FCC, EN50155, EN50121-3-2

Dimensions

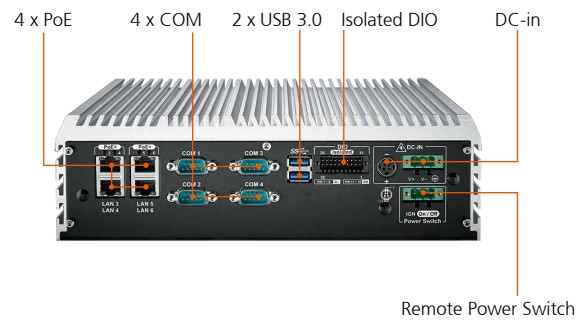
Unit : mm/ inch



Front I/O



Rear I/O



Order Information

ECS-9071	ECS-9000, 6 GigE LAN with 4 PoE*, 2 10G SFP+, 4 COM, 3 SIM, 6 USB 3.0, 16 Isolated DIO
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Accessories

DDR4 32G	Certified DDR4 32GB 2666MHz RAM
DDR4 16G	Certified DDR4 16GB 2400/2133 MHz RAM
DDR4 8G	Certified DDR4 8GB 2400/2133 MHz RAM
DDR4 4G	Certified DDR4 4GB 2400/2133 MHz RAM
PWA-120W	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-120WM4P	120W, 24V, 90V AC to 264V AC Power Adapter with 4-pin Mini-DIN Connector
PWA-160W-WT	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-180W	180W, 24V, 90V AC to 132V AC/ 180V AC to 264V AC Power Adapter with 3-pin Terminal Block, 0°C to +40°C
PWA-280W-WT	280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
VESA Mount	VESA Mounting Kit
DIN-RAIL Kit	DIN Rail and VESA Mounting Kit
Rack Mount	2U Rackmount Kit
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

CPU List

Series	CPU	Cache (MB)	Turbo Freq. (GHz)	TDP (W)	ECC Memory
Intel® Xeon®	E3-1275 v6	8	4.2	80	Yes
	E3-1275 v5		4	80	
	E3-1225 v5		3.7	80	
	E3-1268L v5		3.4	35	
Intel® Core™	i7-7700	8	4.2	65	NA
	i7-7700T		3.8	35	
	i7-6700		4	65	
	i7-6700TE		3.4	35	
	i5-7500	6	3.8	65	NA
	i5-7500T		3.3	35	
	i5-6500		3.6	65	
	i5-6500TE	3.3	35	Yes	
	i3-7101E	3	3.9		65
i3-7101TE	3.4		35		
i3-6100	4	3.7	65	Yes	
i3-6100TE		2.7	35		